UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

STATEMENT OF BASIS FOR ISSUANCE OF UNDERGROUND INJECTION CONTROL (UIC) PERMIT

Permit Number: MI-079-2D-0016

Facility Name: Wlosinski 2-27 SWD

Tenexco, Incorporated of River Forest, Illinois, has applied for a U.S. Environmental Protection Agency (USEPA) permit for the Wlosinski 2-27 SWD injection well to be used for salt water disposal in the Rapid River Township oil field, Kalkaska County, Michigan. The Wlosinski 2-27 SWD well has been operating as an injection well since August 31, 1983, under permit by the State of Michigan Department of Natural Resources and, since June 25, 1984, under authorization by rule of the USEPA.

Review of the permit application indicates that no significant environmental impact should result from the proposed injection. The USEPA therefore intends to issue a permit for this well. Under the authority of Title 40 Code of Federal Regulations (CFR) Parts 144 and 146, USEPA permits must specify conditions for construction, operation, monitoring, reporting, and plugging and abandonment of injection wells so as to prevent the movement of fluids into any underground source of drinking water (USDW). General provisions for USEPA UIC permit requirements are found at Title 40 CFR Parts 144 and 146, while regulations specific to Michigan injection operations are found at Title 40 CFR Part 147 Subpart X. In accordance with Title 40 CFR Part 124.7, general information and highlighted permit conditions specific to this well are as follows:

Underground Sources of Drinking Water (USDW): USDWs are defined by the UIC regulations as aquifers or portions thereof which contain less than 10,000 milligrams per liter of total dissolved solids and which are being or could be used as a source of drinking water. The base of the lowermost possible USDW in the vicinity of the injection well has been identified at approximately 445 feet below ground surface. This water-bearing formation is the Glacial Drift.

Injection and Confining Zones: Injection of fluids for salt water disposal is limited by the permit to the Detroit River and Bois Blanc Formations in the interval between 2824 and 4334 feet below ground surface. This injection zone is separated from the lowermost USDW by approximately 2379 feet of sedimentary rock strata.

Construction Requirements: The construction of the injection well meets the regulatory criteria of Title 40 CFR §146.22(b). This requires that all Class II wells must be cased and cemented to prevent the movement of fluids into or between USDWs.

Injection Fluid: The injected fluid is limited by the permit to produced brine. The expected maximum daily volume of fluid to be injected is 2000 barrels.

Maximum Injection Pressure: The maximum wellhead injection pressure shall be limited to 594 pounds per square inch gauge (psig). This limitation will ensure that the pressure during injection does not initiate fractures in the confining zone adjacent to the lowermost USDW during injection operations. This in turn ensures that the injection pressure will not cause the movement of injection or formation fluids into a USDW as prohibited by Title 40 CFR §146.23(a)(1).

Monitoring and Reporting Requirements: In accordance with Title 40 CFR §144.54 and §146.23, the applicant will be responsible for observing and recording injection pressure, flow rate, annulus pressure, and cumulative volume on a weekly basis and reporting this to USEPA on a monthly basis. The applicant will also be responsible for observing, recording and reporting annulus liquid loss on a quarterly basis. In addition to satisfy the requirements set forth at Title 40 CFR §146.8(b), the mechanical integrity pressure demonstration test was conducted on August 25, 1987, for the Wlosinski 2-27 SWD well. This pressure test was witnessed by a representative of the USEPA and the well was found to have integrity. The applicant will be required to repeat this pressure test at least once every five (5) years. To satisfy the requirements set forth at Title 40 CFR §146.8(c) as to the absence of fluid movement behind the casing, USEPA reviewed all available information such as cement bond logs, cement tickets and noise and temperature logs for this well. USEPA has concluded that the permittee has met the fluid movement demonstration requirement.

Plugging and Abandonment: In accordance with Title 40 CFR §146.10 and §146.24(d), the permit includes a plugging and abandonment plan for an environmentally protective well closure at the time of cessation of operations. Tenexco, Incorporated has demonstrated adequate financial responsibility to close, plug, and abandon this underground injection operation. A Blanket Bond in the amount of $50,000 has been established for this purpose with the Oil & Gas Insurance Company.

Expiration Date: In accordance with Title 40 CFR §144.36(a), the permit will be in effect for the life of the facility, unless it is otherwise modified, revoked and reissued, or terminated as provided at Title 40 CFR §144.39, §144.40 and §144.41. The permit will be reviewed by USEPA at least once every five (5) years from its effective date for consistency with new or revised Federal regulations.

Questions, comments and requests for additional information or for a public hearing may be submitted in writing to the contact person listed below or made verbally to Miguel A. Del Toral at (312) 886-4298. The public comment period on this permitting action will close thirty (30) days after the date of the public notice. If USEPA receives written comments of substantial public interest concerning a hearing on this action, a public notice of a scheduled hearing will be published locally and mailed to interested parties.

U.S. Environmental Protection Agency
Region V (5WD-TUB-9)
230 S. Dearborn Street
Chicago, Illinois 60604

Attn: Edward P. Watters, Chief
Underground Injection Control Section

for Dale L. Jones

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